

AYK REGION

SALMON BOF RPT #9

UPPER YUKON AREA COMMERCIAL FISHERY  
1974

A Special Report to The Alaska Board of Fish and Game

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Alaska Department of Fish and Game  
Division of Commercial Fisheries  
1974

## Special Report - Upper Yukon Area Commercial Fishery, 1974

### Introduction

The present subdistrict boundaries of the upper Yukon River were established by the Board of Fish & Game in December, 1973. Formerly subdistrict 4, this area was redefined and subdivided into three distinct subdistricts for regulatory and management purposes: subdistrict 4 (mouth of Bonasila River to Illinois Creek at Kallands, 360 river miles); subdistrict 5 (mouth of Illinois Creek to the Alaska-Canada border, 560 river miles) and subdistrict 6 (the Tanana River, 500 river miles, slightly less than half open to commercial fishing) (Figure 1 ).

Commercial catch data presented in this report applies only to the upper Yukon area. However, upper Yukon area commercial and subsistence catch data and escapement estimates are incorporated into the data presented in the Yukon area section of the AYK regional report to the Board.

Prior to 1974, the catch quotas in the entire upper Yukon River drainage (upstream of the mouth of the Koyukuk River) provided for a commercial harvest of 2,000 king and 2,000 chum and coho salmon combined. These quotas were amended in 1973 in response to increased interest in the development of a commercial fishery in this area. Current catch quotas are as follows: subdistrict 4, 1,000 kings and after August 15, 10,000 chum and coho salmon combined; subdistrict 5, 3,000 kings and after August 15, 25,000 chum and coho salmon combined; and subdistrict 6, 1,000 kings and after August 15, 15,000 chum and cohos combined. There are no catch quotas on chum salmon taken prior to August 15.

Strategy for management of these fisheries provides that when king salmon quotas are met, the commercial fishing season is closed by emergency order. All fishermen including those fishing for subsistence purposes are required to remove their nets from the water or stop their fishwheels from turning for 24 hours prior to the opening and following the closure of the commercial fishing season. The season would remain closed until Department personnel ascertain that the bulk of the king salmon run has passed through the area in its spawning migration. This determination would be made by evaluating species composition of catches made by subsistence fishermen during the closure. The subsequent opening of the second season is then announced by emergency order.

Set gillnets and fishwheels are legal forms of gear in the three upper river subdistricts. Nets are used primarily for the taking of king salmon with a shift to the use of fishwheels for the harvest of the later running and more abundant chums. An individual may have in operation not more than one fishwheel at any one time. Set gillnets may not exceed 150 fathoms in aggregate length. Fishermen may operate only one type of gear at any one time. The minimum distance between commercial gear may not be less than 200 feet. Gear and vessels registered in subdistricts 4, 5 or 6 may not transfer to another subdistrict. Salmon may be taken commercially five days per week and for subsistence purposes, seven days per week.

#### 1974 Upper Yukon Area Summary

Commercial fishing license registration in 1974 was 52 percent over that in 1973 for the same area with 153 commercial, 110 vessels, 67 gillnets and 85 fishwheels registered as opposed to 101, 76, 40 and 56 respectively for the previous year. Table 1 presents commercial license registration by

subdistrict and village in 1974. Numbers of licensed commercial fishermen are again expected to increase in 1975. The vast majority of upper-Yukon fishermen are local residents of Athabascan Indian extraction. No non-resident licenses were issued in 1974. The tremendous increase in license registration and operation of fishwheels reflects, of course, the expansion of the upriver commercial fishery.

In the upper Yukon area, a total of 116,061 salmon were taken commercially in 1974. Of these, 4,835 were kings, 108,338 were chums and 2,888 were cohos. Tables 2, 3 and 4 reflect a more detailed account of these catches. Catch data by gear type is not yet available. These preliminary figures represent an increase of 101,749 salmon over the reported total harvest of 14,312 taken from the same area in 1973, an eight-fold increase. Table 5 presents commercial catch data for the years 1960-1974.

Fish collected from fishermen are flown, usually by light single engine aircraft from village locations to processing plants and retail distributors in Nenana, Manley, Anchorage and Fairbanks. Salmon are primarily frozen dressed or frozen in the round. The extremely high overhead for operators facing logistical problems such as these is offset by the profitable production and export of salmon roe. The majority of the upper-river king salmon is sold in the fresh-fish market or as strips and most chums are sent via freezer vans or commercial airlines to canneries in Alaska and in the Seattle area.

#### King Salmon

Total commercial king salmon harvests in 1974 for Yukon subdistricts 4, 5 and 6 were 679; 2,661; and 1,495 respectively. King salmon quotas in subdistricts 4 and 5 were not met; however, the Tanana River (subdistrict 6) king salmon fishery was closed by emergency order on July 20 when the 1,000-

fish quota was reached. Late fish tickets accounted for the quota being exceeded by 458 fish. Tables 2, 3 and 4 present commercial catch data by fishing period for these species.

#### Chum and Coho Salmon

A total of 108,338 chums and 2,888 cohos were commercially harvested from the upper three Yukon River subdistricts in 1974. Tables 2, 3 and 4 present commercial catch data by fishing period for these species. The commercial harvest of chums was the largest in the history of the Yukon River fishery and catches in the upper river areas were reflective of this. While it is assumed that the magnitude of both the summer and fall runs of chums was above average, factors such as increased fishing pressure and the declining demand for subsistence-use fish also attributed to the large commercial catch. Additionally, the extremely low water levels which prevailed throughout the drainage during the summer months probably allowed a greater harvest than under more normal conditions.

Fall chum and coho salmon quotas were met in subdistricts 5 and 6 and commercial fishing was closed by emergency order in these areas on September 14 and September 28, respectively. The quota over-run which occurred in subdistrict 6 resulted from unexpectedly high catches just prior to the closure and from fish tickets received several days late.

#### Value of Fishery

Preliminary tabulations indicate that total dollar value of the commercial salmon fishery to the fishermen in the upper-Yukon area was in excess of \$185,000. This figure includes income derived from the sales of salmon roe taken by licensed fishermen. First wholesale value of salmon and salmon by-products is not yet available.

## Enforcement

The Board of Fish and Game at their fall meeting in 1973 adopted an almost entirely new set of commercial fishing regulations for the upper Yukon subdistricts. Even in simplified form these laws are not easily comprehended by many people for whom they are intended. For this reason, a rather slow approach to stringent enforcement of commercial fishing regulations was taken. During the course of the season, Commercial Fisheries personnel and Fish & Wildlife Protection officers issued only two citations for fishing violations and four written warnings. An extremely high degree of compliance was obtained by issuance of verbal warnings. The most common violations observed during the course of the season was unmarked fishing gear, failure to submit timely and accurate catch information and fishing during closed periods. The 1975 season will bring full scale enforcement of the more critical regulations. In general, compliance with this new and seemingly complex set of regulations was excellent.

Higher than anticipated levels of participation in the commercial fishery in certain sections of the upper-Yukon subdistricts and the continuation of moderately intensive subsistence fishing in the same areas necessitates certain regulatory restrictions prior to the 1975 season. The Department is proposing a reduction in subsistence fishing from seven to five days per week in these areas of high effort, which will enhance the numbers of salmon reaching spawning grounds and will facilitate enforcement of commercial fishing regulations.

Other major problems encountered in the management of this fishery includes difficulty in obtaining timely catch information necessary for management purposes and a general lack of adequate enforcement effort. Present plans call for placement of temporary employees in key locations for collection of catch data to alleviate problems created by delinquent processors and irregular and infrequent mail service.

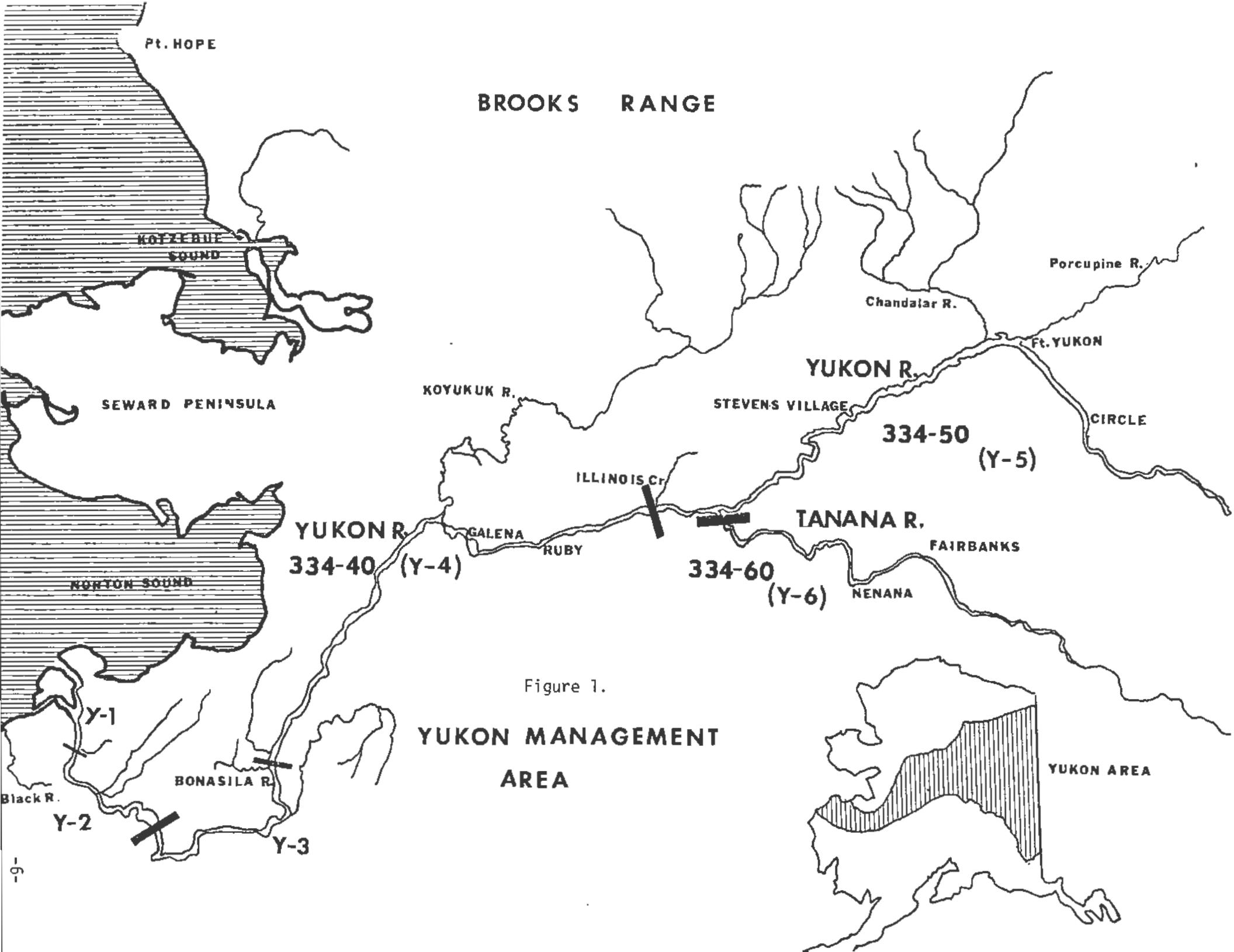


Figure 1.

**YUKON MANAGEMENT  
AREA**

Table 1. Commercial license registration by village and subdistrict, upper Yukon area, 1974.

Village	Commercial	Vessel	Set Net	Fishwheel	1/
Anvik	2	2	-	2	
Grayling	4	4	-	4	
Nulato	1	1	-	1	
Koyukuk	1	1	-	1	
Galena	14	10	7	6	
Ruby	17	12	6	10	
Subtotal Subdistrict #4	(39)	(30)	(13)	(24)	
Tanana	24	18	10	16	
Rampart	9	7	9	2	
Stevens Village	5	3	4	2	
Beaver	-	-	-	-	
Fort Yukon	1	1	-	1	
Circle City	2	2	1	2	
Eagle	4	3	3	-	
Subtotal Subdistrict #5	(45)	(34)	(27)	(23)	
Nenana	36	19	5	18	
Fairbanks	33	27	22	20	
Subtotal Subdistrict #6	(69)	(46)	(27)	(38)	
TOTAL	153	110	67	85	

1/ No license required for fishwheels.



Table 2 . Commercial salmon catches by period, subdistrict 4, upper Yukon area, 1974.

Period Ending	King	Chum	Coho	Total
6/22	31	25	-	56
6/29	192	1,633	-	1,825
7/6	400	4,999	-	5,399
7/13	53	10,910	-	10,963
7/20	-	4,118	-	4,118
7/27	3	1,718	-	1,721
8/3	-	752	-	752
8/10	-	2,617	-	2,617
8/17	-	5,450	-	5,450
8/24	-	1,267	-	1,267
8/31	-	4,383	-	4,383
9/7	-	-	-	-
9/14	-	1,042	-	1,042
Total	679	38,914	-	39,593

Table 3 . Commercial salmon catches by period, subdistrict 5, upper Yukon area, 1974.

Period Ending	King	Chum	Coho	Total
6/22	72	-	-	72
6/29	405	-	-	405
7/6	470	-	-	470
7/13	681	260	-	941
7/20	538	628	-	1,166
7/27	442	1,412	-	1,854
8/3	52	992	-	1,044
8/10	1	1,411	-	1,412
8/17	-	3,799	-	3,799
8/24	-	3,886	-	3,886
8/31	-	4,380	-	4,380
9/7	-	5,042	-	5,042
9/14	-	4,541	91	4,632
9/21	-	500	500	1,000
9/28	-	1,162	909	2,071
Total	2,661	28,013	1,500	32,174

Table 4 . Commercial salmon catches by period, subdistrict 6, upper Yukon area, 1974.

Period Ending	King	Chum	Coho	Total
6/29	5	-	-	5
7/7	336	8	-	344
7/13	670	460	-	1,130
7/20	447	4,446	-	4,893
7/27	24	839	-	863
8/3	9	6,512	-	6,521
8/10	1	3,632	-	3,633
8/17	3	1,770	-	1,773
8/24	-	1,421	4	1,425
8/31	-	3,253	10	3,263
9/7	-	5,749	130	5,879
9/14	-	13,321	1,244	14,565
Total	1,495	41,411	1,388	44,294

Table 5 . Commercial salmon catches by species in the upper Yukon area,  
Yukon district, 1960-1974.

Year	King salmon	Chum salmon	Coho salmon	Total
1960	884	-	-	884
1961	1,804	-	-	1,804
1962	724	-	-	724
1963	803	-	-	803
1964	1,081	-	-	1,081
1965	1,863	381	-	2,244
1966	1,988	-	-	1,988
1967	1,449	-	-	1,449
1968	1,126	-	-	1,126
1969	985	703	95	1,783
1970	1,666	907	-	2,573
1971	1,749	1,061	38	2,848
1972	1,092	1,254	22	2,368
1973	1,847	12,717	-	14,564
1974:				
subdistrict #4	679	38,914	-	39,593
subdistrict #5	2,661	28,013	1,500	32,174
subdistrict #6	1,495	41,411	1,388	44,294
	<u>4,835</u>	<u>108,338</u>	<u>2,888</u>	<u>116,061</u>